JumpCloud #2

Go-based file-integrity monitoring

Client
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Company Background
JumpCloud is a venture-funded company located in Boulder. Founded in 2012 we now have seven engineers working in Go and Node.js backed with MongoDB in an Amazon-based environment. Our offerings are centered around server management, security, and authentication -- controlling who can get onto a machine and allowing administrators to manage the servers with complex orchestration, as well as managing the security posture of the system. More information is available at http://www.jumpcloud.com.

Project Goals
OSSEC is a powerful tool to detect changes to a system’s configuration and to monitor a set of log files for error conditions. It is used by operations personnel to be alerted to possible breaches on one or across many machines simultaneously. Unfortunately, OSSEC has a high learning curve and is not at all user-friendly. We at JumpCloud would like to emulate the best parts of OSSEC in our product while offering much better ease-of-use and configurability. The first step in this process is to write code that monitors changes across one or many files on a system and alerts appropriately.

Specifically we need to:
* Write GO code that can be configured to notify of changes to a configurable set of files.
* We will be plugging this code into an existing agent infrastructure, so it will need to implement the well-defined API for receiving configuration, formatting its responses, and communicating back to the server.

Project Skills
* Basic programming knowledge.
* Go experience useful but not necessary.